REMARKS

Claims 2-3, 13-30, 40-41, 45, 52-53, and 57 have been canceled. Claims 1, 4, 7, 8, 9-11, 31, 32, 34, 36, 37, 39, 44, 46-48, 51, 54-56, and 58-62 have been amended. Claims 1, 4-12, 31-39, 42-44, 46-51, 54-56, and 58-62 are pending in the application. Reconsideration is respectfully requested in light of the following remarks.

Section 101 Rejection:

The Examiner rejected claims 20-25, 39-46, 47-50, 51-58 and 59-62 under 35 U.S.C. § 101 as not having a practical application that produces useful, concrete, and tangible result. Applicants respectfully traverse this rejection. However, in order to expedite prosecution certain amendments have been made to the claims.

The Examiner rejected claims 20, 39, and 51 because the claims recite the limitation of "determining if the function generated an error; and if the function generated an error...". Claims 20-25 have been canceled. Claims 39 and 51 have been amended to recite "the program obtaining an error trace for each thread of the multithreaded program in accordance with the API to the error trace mechanism". Thus, Applicants respectfully request removal of the § 101 rejection of claims 20-25, 39-46, and 51-58.

The Examiner rejected claims 47 and 59 because the claims recite the limitation of "if the library function generates one or more errors ...". Claims 47 and 59 have been amended to recite "<u>for each thread of the multithreaded program</u>, adding an error trace element <u>for each error generated on the thread by the library functions</u> to an error trace <u>in a memory storage area specific to the thread</u>". Thus, Applicants respectfully request removal of the § 101 rejection of claims 47-50 and 59-62.

The Examiner rejected claims 51-62 as being directed to non-statutory subject matter. Applicants respectfully traverse this rejection. However, in order to expedite prosecution, currently pending claims 51, 54-56, and 58-62 have been amended to recite

a "computer-accessible <u>storage</u> medium." Applicants respectfully request removal of the § 101 rejection of claims 51-62.

Section 112, Second Paragraph, Rejection:

The Examiner rejected claims 36-38 under 35 U.S.C. § 112, second paragraph, as indefinite because there is insufficient antecedent basis for the limitation "the plurality of library functions." Claim 36 has been amended to recite "the plurality of functions" which has proper antecedent basis. Thus, Applicants respectfully request removal of the § 112 rejection of claims 36-38.

Section 102(b) Rejection:

The Examiner rejected claims 1-25 and 31-62 under 35 U.S.C. § 102(b) as being anticipated by "Error Handling Interface (H5E)" (hereinafter "H5E"). Applicants respectfully traverse this rejection for at least the following reasons.

In reference to claim 1, the cited art (the H5E reference) teaches an error handling interface in which errors that occur during execution of a library are pushed onto an error stack, and that the errors can be retrieved from the error stack. However, the cited art does not teach or suggest an error trace mechanism for a multithreaded program configured to, for each error generated by one or more functions executed in <u>each of two or more threads</u> in the multithreaded program, store an error trace element in a <u>memory storage area specific to the corresponding thread</u>, as is recited in amended claim 1. Further, the cited art does not teach or suggest an error trace mechanism configured to obtain an error trace for <u>each of two or more threads</u> of a multithreaded program, wherein each error trace includes one or more error trace elements <u>specific to the corresponding thread</u>, as is recited in amended claim 1.

Thus, for at least the reasons presented above, the rejection of claim 1 is not supported by the cited prior art and removal thereof is respectfully requested. Similar

remarks as those above regarding claim 1 also apply to claims 9, 31, 36, 39, 47, 51, and 59.

Applicants also assert that the rejection of numerous ones of the dependent claims is further unsupported by the cited art. However, since the rejection has been shown to be unsupported for the independent claims, a further discussion of the dependent claims is not necessary at this time.

Section 103(a) Rejection:

The Examiner rejected claims 26-30 under 35 U.S.C. § 103(a) as being unpatentable over H5E in view of "Debugging HDF5 Applications" (hereinafter "HDF5"). Claims 26-30 have been canceled, thus rendering this rejection moot.

CONCLUSION

Applicants submit the application is in condition for allowance, and prompt notice

to that effect is respectfully requested.

If any fees are due, the Commissioner is authorized to charge said fees to

Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5681-

69401/RCK.

Respectfully submitted,

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